

REMARKS

I. Introduction

Applicants add new claims 19-21. Therefore, claims 1-21 are all the claims pending in the application. However, claims 1-18 were examined. The Examiner rejects claims 1-18. Furthermore, the Draftsperson objects to the drawings.

II. Claim Rejections -- 35 U.S.C. § 103(a)

Claims 1-18 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over the Chen et al. publication, *Performance Comparison of Three Alternatives of Distributed Multidatabase Systems: A Global Query Perspective* (hereinafter "Chen"), in view Jindal et al., U.S. Patent No. 6,324,580 (hereinafter "Jindal").

Applicants traverse the rejection of claims 1-18 as follows.

A. Claims 1, 7, and 13

The combination of Chen and Jindal fails to teach or suggest all of the features of claims 1, 7, and 13. For example and not by way of limitation, the Examiner acknowledges that Chen fails to teach or suggest "selecting a server to process the request . . . based on whether the server can satisfy the request for data", as recited in claims 1, 7, and 13. To make up for this acknowledged deficiency of Chen, the Examiner relies on Jindal (col. 6, line 4 to col. 7, line 21). Jindal describes load balancing requests for a replicated service or application among a plurality of servers operating instances of the replicated service or application. *See, e.g.*, Abstract of Jindal. However, Jindal fails to teach or suggest "selecting a server . . . based on whether the

server can satisfy the request for data" (*e.g.*, is the proper type and can support the additional load). Indeed, given that Jindal describes a plurality of servers, each of which is considered to operate a separate instance of the same/replicated service or application, *i.e.*, individual users may be routed to, and their requests satisfied by, any of the several servers (*see, e.g.*, col. 4, lines 49-47 of Jindal), Jindal appears to teach away from the feature of "selecting a server to process the request . . . based on whether the server can satisfy the request for data", recited in claims 1, 7, and 13.

Furthermore, Applicants note that to establish a *prima facie* case of obviousness, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. *See* MPEP § 2143.

Furthermore, as the Federal Circuit just recently reminded us, the USPTO is held to a *rigorous* standard when trying to show that an invention would have been obvious in view of the combination of two or more references. *See, In re Sang Su Lee*, 2002 U.S. App. LEXIS 855, *10 (Fed. Cir. 2002), *citing, e.g., In re Dembiczak*, 175 F.3d 994, 999, 50 USPQ2d 1614, 1617 (Fed. Cir. 1999) ("Our case law makes clear that the best defense against the subtle but powerful attraction of a hindsight-based obviousness analysis is rigorous application of the requirement for a showing of the teaching or motivation to combine prior art references.").

The Federal Circuit goes on to emphasize that the "need for specificity pervades this authority." *In re Sang Su Lee* at *10-*11 (emphasis added) (*citing In re Kotzab*, 217 F.3d 1365, 1371, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000) ("particular findings must be made as to the

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reason the skilled artisan, with no knowledge of the claimed invention, would have selected these components for combination in the manner claimed”)).

Applicants respectfully submit that the current grounds of rejection do not satisfy the aforementioned standard for demonstrating that the claimed invention would have been obvious in view of the combination of Chen in view of Jindal.

Specifically, the Examiner asserts that "it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Chen by including selecting a server to process the request based on a load of the server and based on whether the server can satisfy the request for data, as taught by Jindal, so the computer server capable of efficiently satisfying the needs of a limited number of clients". However, there does not appear to be any suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. For example, Chen presents a comparative study of three common relational multidatabase approaches from the perspective of global query performance. However, satisfying the needs of a limited number of clients is not an issue taught or suggested by Chen. Indeed, the issue only arises in Jindal where a plurality of servers provide instances of the same service, but where a server may only be able to satisfy the needs of a limited number of clients. Thus, absent impermissible hindsight, the Examiner has provided no indication as to why one of ordinary skill in the art would have been motivated from the disclosure of Jindal, relating to balancing client requests for a service replicated among a plurality of servers , to modify the general multidatabase approach described in Chen in order to obtain Applicants' claimed invention.

B. Claims 2-6, 8-12, and 14-18

Claims 2-6, 8-12, and 14-18 are patentable over the combination of Chen and Jindal at least by virtue of their respective dependency from independent claims 1, 7, and 13, as well as the additional features recited therein.

For example, claims 3, 9, and 15 recite "forwarding additional requests for similar data to the selected server". The Examiner asserts that Jindal discloses this recited feature at col. 6, line 4 to col. 7, line 21. Jindal describes that a policy for selecting a preferred server may be in effect for a short time (*e.g.*, 60 seconds) or a long time (*e.g.*, 1 day). *See, e.g.*, col. 7, lines 11-21 of Jindal. However, this duration of the preferred server described in Jindal does not teach or suggest "forwarding additional requests for similar data to the selected server". Whether a request is for similar data is not a consideration taught or suggested by Jindal. Indeed, since Jindal relates to a replicated service or application, all requests (for the service or application) would be for similar data.

Furthermore, claims 5, 11, and 17 recite "upon receiving a request to add another server, connecting the server to an existing server in the server hierarchy based on a number of connections of the existing server. The Examiner asserts that Chen discloses these claimed features at page 54/col. 2, line 25 to page 55/col. 1, line 5 and Fig. 3. The portion of Chen relied on upon by the Examiner discusses a middleware (software) approach to conducting global queries in a multidatabase system. However, the middleware discussion of Chen fails to teach or suggest "receiving a request to add another server" or "connecting the server to an existing server in the server hierarchy based on a number of connections of the existing server". Indeed, Fig. 3

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of Chen fails to even illustrate (or teach or suggest) a "server hierarchy" in that the middleware/software is not a server. Thus, it follows that Chen (contrary to the Examiner's assertion), also fails to teach or suggest "upon receiving a request to delete an existing server in the hierarchy, deleting that server", as recited in claims 6, 12, and 18.

For at least the above exemplary reasons, claims 1-18 are patentable over the combination of Chen and Jindal.

III. Drawings

The Form PTO-948 attached to the Office Action indicates that the Draftsperson objects to the drawings filed on September 21, 1999. However, Applicants filed formal drawings more recently on November 9, 1999 (which were received and stamped in the PTO on November 11, 1999). Indeed, the Office Action dated October 11, 2001 included a Form PTO-948 indicating that the drawings received on November 11, 2001 were only objected to because Fig. 7 contained solid black shading impermissible under 37 C.F.R. § 1.84(m). Applicants subsequently submitted a corrected drawing for Fig. 7 on November 16, 2001.

Thus, the objections to the drawings filed on September 21, 1999 are overcome by the more recent submission of drawings on November 9, 1999 and November 16, 2001. Therefore, Applicants respectfully request that the Examiner/Draftsperson indicate approval of the drawings currently on file in the above-identified application.

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IV. New Claims 19-21

Applicants add new claims 19-21 directed to adequately disclosed, yet currently unclaimed features of the invention. Claims 19-21 are patentable at least by virtue of their dependency.

V. Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly invited to contact the undersigned attorney at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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APPENDIX

VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS:

Claims 19-21 are added as new claims.